

CLAIMS

1. A data editing method comprising:

a first data management step of managing stream data recorded on a predetermined recording medium in a unit of a file based on a file system; and

a second data management step of performing management in a unit of a track based on a track managing data file which includes track management information formed from information elements each of which is information corresponding to one of tracks each of which is a data part within a range of the stream data in the file unit and indicates coordination with the stream data of the file unit and information elements each of which indicates a data position of one of the tracks in the stream data of the corresponding file unit;

wherein said second data management step executes, where track division of dividing the stream data of the file unit to form a plurality of tracks or track erasure of erasing one of the tracks is to be performed, an updating process for contents of the track management information in the track managing data file in response to a manner of the track division or track erasure.

2. The data editing method according to claim 1,

wherein said first data management step is capable of managing data such that an offset region is provided at the top of the stream data as one file and the entity of the stream data is disposed following the offset region; and

when on-medium erasure of erasing a data part of a track unit of the stream data from the recording medium by rewriting of the file system is performed, if partial data of the data part of the track unit which is the object of the on-medium erasure remains in the data part for the data management unit of the file system including a last end position of the data part of the track unit which is an object of the on-medium erasure, manages the remaining partial data as the offset region.

3. The data editing method according to claim 1, wherein said first data management step produces and retains track erasure information indicative of whether or not erasure by the track-erasure has been performed for at least one of data parts as tracks which form the stream data as one file, and

said first data editing method further comprises:

a discrimination step of discriminating the stream data having track-erasable data parts by referring to the track erasure information; and

a control step of determining a data part as a track to be erased based on a result of the discrimination at the stream data discrimination step and controlling said first data management step so that the determined data part as a track is track-erased.

4. The data editing method according to claim 1, further comprising an encryption processing step of chaining at least encryption blocks of data to be recorded on the recording medium and encrypting the chained encryption blocks,

wherein said encryption processing step executes an encryption process such that the encryption blocks are chained within a range of a minimum data unit for managing the stream data in the track unit by the track management information.

5. A data editing apparatus comprising:

first data management means for managing stream data recorded on a predetermined recording medium in a unit of a file based on a file system; and

second data management means for performing management in a unit of a track based on a track managing data file which includes track management information formed from information elements each of which is information corresponding to one of tracks each of which

is a data part within a range of the stream data in the file unit and indicates coordination with the stream data of the file unit and information elements each of which indicates a data position of one of the tracks in the stream data of the corresponding file unit;

wherein said second data management means executes, where track division of dividing the stream data of the file unit to form a plurality of tracks or track erasure of erasing one of the tracks is to be performed, an updating process for contents of the track management information in the track managing data file in response to a manner of the track division or track erasure.

6. The data editing apparatus according to claim 5, wherein said first data management means is capable of managing data such that an offset region is provided at the top of the stream data as one file and the entity of the stream data is disposed following the offset region; and

when on-medium erasure of erasing a data part of a track unit of the stream data from the recording medium by rewriting of the file system is performed, if partial data of the data part of the track unit which is the object of the on-medium erasure remains in the data part for the data management unit of the file system including

a last end position of the data part of the track unit which is an object of the on-medium erasure, manages the remaining partial data as the offset region.

7. The data editing apparatus according to claim 5, wherein said first data management means produces and retains track erasure information indicative of whether or not erasure by the track-erasure has been performed for at least one of data parts as tracks which form the stream data as one file, and

said data editing apparatus further comprises:

discrimination means for discriminating the stream data having track-erasable data parts by referring to the track erasure information; and

control means for determining a data part as a track to be erased based on a result of the discrimination by said stream data discrimination means and controlling said first data management means so that the determined data part as a track is track-erased.

8. The data editing apparatus according to claim 5, further comprising encryption processing means for chaining at least encryption blocks of data to be recorded on the recording medium and encrypting the chained encryption blocks,

wherein said encryption processing means executes

an encryption process such that the encryption blocks are chained within a range of a minimum data unit for managing the stream data in the track unit by the track management information.